

REMARKS

In the Office Action, the Examiner noted that claims 1-24 are pending in the application. The Examiner rejected claims 1-6 and 8-23, and objected to claims 7, and 24. By this response, claims 2 and 24 are cancelled without prejudice. Claims 1, 4, 8, 9, 20, 21, and 23 are amended. It should be noted that supports for the amendments of these claims can be found, at least, in paragraphs, [0010], [0011], [0031], and [0033] of Applicants' specification. In view of the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. §102 or obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in condition for allowance.

I. Claims Objections

The Examiner objected to claims 4, 9, 20 and 21 for informalities. Responsive to the Examiner, Applicants have amended claims 4, 9, 20 and 21 as suggested by the Examiner. Specifically, the amendments pertain to changing the term "Rx" to "receive", "Tx" to "transmit" and "PMA" to "physical media attachment (PMA)". These amendments only pertain to replacing acronyms with their corresponding terms. As such, these amendments are not made in response to the cited references and, therefore, should not be interpreted to limit the scope of the amended claims. Applicants respectfully request that the objection be withdrawn.

II. Rejection of Claims Under 35 U.S.C. §102

A. Claims 1, 4, and 6

The Examiner rejected claims 1, 4, and 6 as being anticipated by Ducaroir (United States patent publication 2001/0043648, published November 22, 2001). The rejection is respectfully traversed.

More specifically, the Examiner stated that Ducaroir discloses a first clock data recovery circuitry for receiving serial data and recovering a first recovered clock from the first serial data ([0020]). The Examiner further stated that Ducaroir discloses a transceiver that provides the first recovered clock and a reference clock and the first serial data to a circuit portion of the transceiver ([0020]). Finally, the Examiner stated that Ducaroir discloses the circuit portion uses one of the first recovered clock and the

reference clock for subsequent processing of the first serial data ([0020]). (See Office Action, paragraph 2). The Examiner then concluded that Ducaroir anticipates Applicants' invention as recited in claims 1, 4, and 6.

Ducaroir teaches a serial data transceiver to facilitate testing using only the serial data transfer terminals of the transceiver. (See Ducaroir, Abstract). More specifically, Ducaroir teaches that Serializer 18 either uses a reference clock signal to serialize the parallel data during non-test condition, or uses a recovered clock signal to serialize the parallel data during test condition. (See Ducaroir, Paragraph 0021).

Ducaroir, however, does not teach each and every element of Applicants' independent claim 1. Namely, Ducaroir does not teach or suggest "recovering a plurality of recovered clock signals from a plurality of serial data" as positively claimed by the Applicants.

In one embodiment, Applicants' invention discloses an approach where a plurality of recovered clocks and a reference clock are provided to a circuit portion where one of the clocks is used for processing one of the serial data. (See e.g., Applicants' Specification, paragraphs [0010]-[0011]). In contrast, Ducaroir only discloses a single recovered clock signal.

Since Ducaroir does not teach a plurality of recovered clocks, Ducaroir does not teach each and every element of Applicants' independent claim 1. Accordingly, Ducaroir does not anticipate Applicants' invention as recited in claim 1.

Ducaroir also does not teach each and every element of Applicants' independent claim 6. Namely, Ducaroir does not teach or suggest "using said plurality of recovered clock signals concurrently to perform processing functions" as positively claimed by the Applicants.

In another embodiment, Applicants' invention discloses an approach where the first and second clock based functionalities concurrently perform processing functions using the first recovered clock and the reference clock. (See e.g., Applicants' Specification, paragraphs [0010]-[0011]). In contrast, Ducaroir only discloses using either the reference clock signal or the recovered clock signal for either a test condition or a normal condition, but never concurrently. In other words, Ducaroir specifically teaches away from Applicants' invention where Ducaroir's reference clock signal and

the recovered clock signal are only used in a non-concurrent manner. (See Ducaroir, Paragraph [0021]).

Since Ducaroir does not teach the ability to have the first and second clock based functionalities concurrently perform processing functions using the first recovered clock and the reference clock, Ducaroir does not teach each and every element of Applicants' independent claim 6. Accordingly, Ducaroir does not anticipate Applicants' invention recited in claim 6.

Finally, claim 4 depends from claim 1 and recites additional features therefor. Since Ducaroir does not anticipate Applicants' invention as recited in claim 1, dependent claim 4 is also not anticipated and is allowable. Therefore, the Applicants contend that claims 1, 4 and 6 are not anticipated by Ducaroir and, as such, fully satisfy the requirements of 35 U.S.C. §102.

B. Claims 8, 9, 22, and 23

The Examiner rejected claims 8, 9, 22, and 23 as being anticipated by Ziegler (United States patent publication 2003/0112798, published June 19, 2003). The rejection is respectfully traversed.

More specifically, the Examiner stated that Ziegler discloses a circuitry for receiving a plurality of input serial data streams and that clock data recovery circuitry recovers a corresponding plurality of recovered clocks. Finally, the Examiner stated that Ziegler discloses logic that provides each received input serial data stream to an outgoing transmit block based upon each of the corresponding recovered clocks. (See Office Action, Paragraph 4)

Ziegler teaches a data communication method. More specifically, Ziegler teaches a method of communicating a plurality of parallel data packets from a first data parallel bus to a second parallel data bus. (See Ziegler, Abstract).

Ziegler, however, does not teach each and every element of Applicants' independent claim 8. Namely, Ziegler does not teach or suggest "using a plurality of recovered clock signals from a plurality of serial data and a reference signal" as positively claimed by the Applicants.

In one embodiment, Applicants' invention discloses an approach where a plurality of recovered clocks and a reference clock are provided to a circuit portion

where one of the clocks is used for processing one of the serial data. (See e.g., Applicants' Specification, paragraphs [0010]-[0011]). In contrast, Ziegler only discloses an approach for providing a plurality of recovered clock signals but does not provide a reference clock for processing one of the serial data.

Since Ziegler does not teach an approach where a plurality of recovered clocks and a reference clock are provided to a circuit portion where one of the clocks is used for processing one of the serial data, Ziegler does not teach each and every element of Applicants' independent claim 8. Accordingly, Ziegler does not anticipate Applicants' invention as recited in claim 8.

Similarly, since Ziegler does not teach an approach where a plurality of recovered clocks and a reference clock are provided to a circuit portion where one of the clocks is used for processing one of the serial data, Ziegler does not teach each and every element of Applicants' independent claim 22. Namely, claim 22 recites a method of clock management that uses a plurality of recovered clock signals from a plurality of data streams and a reference clock signal. Accordingly, Ziegler does not anticipate Applicants' invention as recited in claim 22.

With respect to claim 23, Applicants have amended claim 23 to include the features of canceled claim 24, which was indicated as allowable. Therefore, Applicants believe claim 23 is in form for allowance, and respectfully request allowance of claim 23.

Finally, claim 9 depends from claim 8 and recites additional features therefor. Since Ziegler does not anticipate Applicants' invention as recited in claim 8, dependent claim 9 is also not anticipated and is allowable. Therefore, the Applicants contend that claims 8, 9, 22 and 23 are not anticipated by Ziegler and, as such, fully satisfy the requirements of 35 U.S.C. §102.

III. Rejection Of Claims Under 35 U.S.C. §103

A. Claim 2

The Examiner rejected claim 2 as being unpatentable over Ducaroir in view of Ziegler. Claim 2 has been canceled without prejudice. It is respectfully submitted that the present rejection is now moot.

B. Claim 3

The Examiner rejected claim 3 as being unpatentable over Ducaroir in view of Ziegler. The rejection is respectfully traversed.

More specifically, the Examiner conceded that Ducaroir does not teach a delay locked loop circuitry for receiving a second serial data to produce a second received clock. The Examiner stated, however, that Ziegler teaches a second clock recovery circuit. (See Office Action, paragraph 7). The Examiner concluded that it would have been obvious to combine the second clock recovery circuitry of Ziegler with the teaching of Ducaroir. Applicants respectfully disagree.

As discussed above, Ducaroir only discloses the use of a single recovered clock with a reference clock, whereas Ziegler only discloses the use of multiple recovered clocks but does not use a reference clock for processing one of a plurality of serial data. Thus, it is respectfully submitted that Ducaroir teaches away from Ziegler. For example, Ziegler does disclose a reference clock, but it is not used for processing one of a plurality of serial data. As such, the Examiner cannot combine Ducaroir with Ziegler to make Applicants' independent claim 1 obvious.

Claim 3 depends from claim 1 and recites additional features therefor. Thus, the cited references, either singly or in any permissible combination, also do not teach, suggest, or otherwise render obvious Applicants' invention recited in claim 3. Therefore, Applicants contend that claim 3, which depends from claim 1, is patentable over the combination of Ducaroir and Ziegler and, as such, fully satisfies the requirements of 35 U.S.C. §103.

C. Claims 5, 10, 11, and 14-16

The Examiner rejected claims 5, 10, 11, and 14-16 as being unpatentable over Ducaroir in view of Jordan (United States patent publication 2004/0133734, published July 8, 2004). The rejection is respectfully traversed.

More specifically, the Examiner conceded that Ducaroir does not teach a programmable logic fabric. The Examiner stated, however, that Jordan teaches a programmable logic fabric for providing the advantage of flexibility in the configuration of functional models. (See Office Action, paragraph 8). The Examiner concluded that

it would have been obvious to combine the programmable logic fabric of Jordan with the teaching of Ducaroir. Applicants respectfully disagree.

The Examiner's attention is directed to the fact that Jordan has a filing date of November 26, 2003, whereas Applicants' application has a filing date of September 11, 2003. As such, Jordan is not a proper prior art reference against Applicants' invention. If the Examiner is relying on the provisional application filing date of November 29, 2002, then the Examiner is effectively using the Jordan provisional application as a prior art reference. Since a provisional application may have a different specification from that of a 1.111 application that claims priority to the provisional application, it is respectfully requested that the Examiner provides a copy of the provisional application if the Examiner maintains the present rejection. Since the Examiner conceded that Ducaroir alone would not make obvious Applicants' independent claims 1, 10, and 14, independent claims 1, 10, and 14 are not made obvious by Ducaroir in view of Jordan.

Furthermore, even if Jordan is deemed to be a proper prior art reference based on its provisional application filing date, it is respectfully submitted that Ducaroir and Jordan are not in analogous arts. Specifically, Ducaroir discloses a serial data transceiver whereas Jordan discloses a method to hide an operating system program in a memory block. Therefore, any combination of Ducaroir and Jordan would be impermissible use of hindsight.

Claims 5, 11, and 15-16 depends from claims 1, 10, and 14 and recite additional features therefor. Thus, the cited references, either singly or in any permissible combination, also do not teach, suggest, or otherwise render obvious Applicants' invention recited in claims 5, 11, and 15-16. Therefore, Applicants contend that claims 5, 11, and 15-16, which depends from claims 1, 10, and 14, are patentable over the combination of Ducaroir and Jordan and, as such, fully satisfy the requirements of 35 U.S.C. §103.

D. Claims 12, 13, 17, and 18

The Examiner rejected claims 12, 13, 17, and 18 as being unpatentable over Ducaroir in view of Jordan, and further in view of Ziegler. The rejection is respectfully traversed.

As discussed above, Jordan is not a proper prior art reference against Applicants' invention. Since the Examiner conceded that Ducaroir and Ziegler would not make obvious Applicants' independent claims 10 and 14, then independent claims 10, and 14 are not made obvious by Ducaroir in view of Jordan and Ziegler.

Furthermore, even if Jordan is deemed to be a proper prior art reference based on its provisional application filing date, it is respectfully submitted that Ducaroir, Ziegler and Jordan are not in analogous arts. Specifically, Ducaroir discloses a serial data transceiver and Ziegler discloses a data communication method, whereas Jordan discloses a method to hide an operating system program in a memory block. Therefore, any combination of Ducaroir, Ziegler and Jordan would be impermissible use of hindsight.

Claims 12, 13, 17, and 18 depend from claims 10 and 14 and recite additional features therefor. Thus, the cited references, either singly or in any permissible combination, also do not teach, suggest, or otherwise render obvious Applicants' invention recited in claims 12, 13, 17, and 18. Therefore, Applicants contend that claims 12, 13, 17, and 18, which depends from claims 10 and 14, are patentable over the combination of Ducaroir, Jordan and Ziegler and, as such, fully satisfy the requirements of 35 U.S.C. §103.

E. Claims 19-21

The Examiner rejected claims 19-21 as being unpatentable over Ziegler in view of Akita (United States patent publication 2005/0025496, published on February 3, 2005). The rejection is respectfully traversed.

The Examiner's attention is directed to the fact that Akita has a filing date of February 19, 2004, whereas Applicants' application has a filing date of September 11, 2003. As such, Akita is not a proper prior art reference against Applicants' invention. It appears that the Examiner is relying on Akita's foreign priority date of July 30, 2003. However, the Examiner's attention is directed to the fact that 35 USC 102 (e) is explicitly limited to references filed in the US, where foreign priority date is explicitly prohibited. (See MPEP 2136.03). Since the Examiner conceded that Ziegler alone would not make obvious Applicants' independent claim 19, independent claim 19 is not made obvious by Ziegler in view of Akita.

Claims 20-21 depend from claim 19 and recite additional features therefor. Thus, the cited references, either singly or in any permissible combination, also do not teach, suggest, or otherwise render obvious Applicants' invention recited in claims 20-21. Therefore, Applicants contend that claims 20-21, which depend from claim 19, are patentable over the combination of Ziegler and Akita and, as such, fully satisfy the requirements of 35 U.S.C. §103.

IV. Allowable subject matter

The Applicants express their appreciation for the indication that claims 7 and 24 contain allowable subject matter, and would be allowable if rewritten into independent claim form.

Responsive to the Examiner and as noted above, Applicants have amended claim 23 to include the features of claim 24, thereby properly rewriting claim 24 into independent claim form as suggested by the Examiner. Therefore, claim 23 is believed to be allowable.

Applicants respectfully submit that independent 6 is allowable for the reason provided above. As such, Applicants submit that dependent claim 7 is also allowable and Applicants respectfully decline to amend dependent claim 7 as suggested by the Examiner.

CONCLUSION

Thus, the Applicants submit that none of the claims presently in the application are anticipated under the provisions of 35 U.S.C. §102 or obvious under the provisions of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring any adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Justin Liu at 408-879-4641 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

All claims should be now be in condition for allowance and a Notice of Allowance is respectfully requested.

Respectfully submitted,



Justin Liu
Attorney for Applicants
Reg. No: 51959

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on December 22, 2006.

Julie Matthews
Name


Signature